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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,046	01/08/2001	Yutaka Katsuyama	826.1411D4	6749
21171	7590	10/05/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			COUSO, YON JUNG	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/755,046	KATSUYAMA, YUTAKA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yon Couso	2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17,19,30,32,41 and 43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17,19,30,32,41 and 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/14/04</u> . | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's arguments filed June 25, 2004 have been fully considered but they are not persuasive.

a. The newly added limitations (underlined portion), a straight line deleting means for deleting a shorter pattern of two straight line patterns which are included in the one or more straight line patterns and overlap when a ratio of a length of an overlapping portion to a length of the shorter pattern is greater than a threshold value and a straight line deleting means for deleting a straight line pattern composed of segment patterns which are larger than a threshold value, among the one or more straight line patterns, when sizes of all of the segment patterns are greater than the threshold value", do not have proper support in the original application.

b. The applicant argues that the Wang reference deletes if the height is shorter than 3 pixels or taller than the average height times a tolerance factor. The applicant further argues that Wang deletes only rectangular units larger than a certain threshold value. The examiner notes that the Wang's rectangular units include a straight line. Therefore, Wang broadly read on the claimed language of deleting a straight line pattern composed of segment patterns which are larger than a threshold value, among the one or more straight line patterns, when sizes of all of the segment patterns are greater than the threshold value.

c. The applicant argues that the Abe does not mention much less address deciding whether to delete a straight line of a pair based on a ratio between an overlap between patterns and one of the patterns. The examiner notes that there is no evidence in the original specification a shorter pattern of two overlapping straight line patterns is

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deleted when a ratio of a length of an overlapping portion to a length of the shorter pattern is greater than a threshold value. Moreover, nonobviousness cannot be established by attacking references individually when the rejection is predicated upon a combination of prior art disclosure. In re Merck and Co., Inc. 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986) and In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The examiner also noted that a straight line deleting means for deleting a shorter pattern of two straight line patterns which are included in the one or more straight line patterns is provided by Wang in at least the paragraph bridging cols. 5-6, where short units, which can be lines, are deleted from at least one of straight line units. See also Abe in at least Figs. 2A-7B showing straight line patterns, which are deleted, in at least the paragraph bridging cols. 9-10, the paragraph bridging cols. 10-11, and c. 13, lines 54-64. Thus, at least in the broad sense, Abe provides for deleting at least the shorter of two straight line patterns, since the lines are deleted.

2. Claims 17, 19, 30, 32, 41, and 43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly added limitations "when a ratio of a length of an overlapping portion to a length of the shorter pattern is greater than a threshold value" and "when sizes of all of the segment patterns are greater than the threshold value", do not have proper support in the original application.

3. The following is a quotation of the second paragraph of 35 U.S.C 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17, 19, 30, 32, 41, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 19, 32, and 43 include "when sizes of all of the segment patterns are greater than the threshold value". This limitation does not seem to particularly point out when a straight line gets deleted. To paraphrase the claim it boils down to 'delete a line if the line is bigger than threshold, when all lines are bigger than threshold.' If there is one line segment that is not bigger than threshold, there is not deletion of any line in the system. For that matter there is no deleting step in the process claim and computer readable storage medium claim. Please clarify.

Same arguments are applicable to claims 17, 30, and 41 regarding "when a ratio of a length of an overlapping portion to a length of the shorter pattern is greater than a threshold value" clause.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19, 32, and 43 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wang, 5,307,422.

The arguments advanced in paragraph 1 above as to the applicability of the reference are incorporated herein.

For claim 19, ruled line extracting comprising straight line extracting means for extracting information of one or more straight line patterns from an input image is provided by Wang in at least c. 5, lines 15-50 and lines 65-68, by extracting information of units, which can consist of border lines considered as ruled lines, and inputs an image by at least block 12 in Fig. 1. A straight line deleting means for deleting a straight line pattern composed of segment patterns which are larger than a threshold value, among the one or more straight line patterns is provided by Wang in at least the paragraph bridging cols. 5-6.

For claims 32 and 43, see the rejection of at least claim 19, and see Wang in at least the paragraph bridging cols. 4-5, where the invention can be implemented in either hardware or software.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 30, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wang, 5,307,422, in view of Abe, 5,129,012.

The arguments advanced in paragraph 1 above as to the applicability of the reference are incorporated herein.

For claim 17, ruled line extracting comprising straight line extracting means for extracting information of one or more straight line patterns from an input image is provided by Wang in at least c. 5, lines 15-50 and lines 65-68, by extracting information of units, which can consist of border lines considered as ruled lines, and inputs an image by at least block 12 in Fig. 1. See also Abe in at least the last two full paragraphs in c. 5, and Fig. 1c, steps 204-211, for extraction, and the paragraph bridging cols. 4-5, which also indicate ruled lines, and inputs an image in at least the first sentence in the abstract. A straight line deleting means for deleting a shorter pattern of two straight line patterns which are included in the one or more straight line patterns is provided by Wang in at least the paragraph bridging cols. 5-6, where short units, which can be lines, are deleted from at least one of straight line units. See also Abe in at least Figs. 2A-7B showing straight line patterns, which are deleted, in at least the paragraph bridging cols. 9-10, the paragraph bridging cols. 10-11, and c. 13, lines 54-64. Thus, at least in the broad sense, Abe provides for deleting at least the shorter of two straight line patterns, since the lines are deleted. Wang does not explicitly provide for the straight line patterns almost overlapping. However, it would've been obvious to one having ordinary skill in the art at the time the invention was made that Wang provides for lines that overlap given any document in general (especially a complex document – see Wang in the abstract), having lines that overlap is a clear possibility in any document, and Wang explicitly teaches deleting the shorter of such line units. For further evidence of the conventionality of lines that almost overlap, see at least some of the lines of Abe in at least Figs. 2A-7B, some of which do not overlap, and are shorter than others.

For claims 30 and 41, see the rejection of at least claim 17, and Abe in c. 5, lines 34-38, indicating a method and program (i.e. routine) by using a processor, and see Wang in at least the paragraph bridging cols. 4-5, where the invention can be implemented in either hardware or software.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (703) 305-4779. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for



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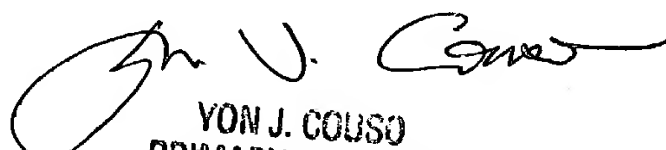
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YON J. COUSO  
PRIMARY EXAMINER

YJC

October 1, 2004